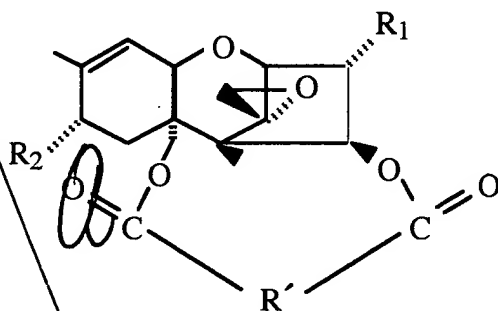


CLAIMS

I Claim:

1. A method of inhibiting the proliferation of, or reducing cell populations of, neoplasms in the lungs of humans or non-human animals, comprising administration by inhalation of therapeutically effective amounts of compound(s) containing a central sesquiterpene epoxide structure.
2. The method of claim 1 wherein said compound(s) are trichothecene(s).
3. The method of claim 2 wherein said trichothecene(s) are a compound or compounds having the following structure(s):



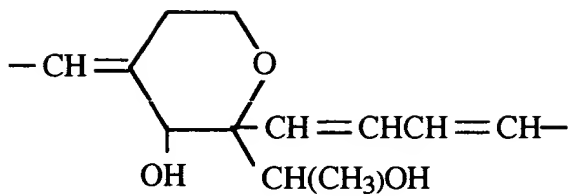
Wherein R₁ is OH, or $\text{OC}-\text{CH}_3$;

R₂ is H, OH, $\text{O}-\text{C}(=\text{O})-\text{CH}_3$ or $\text{OCOCH}_2\text{CH}(\text{CH}_3)_2$; and

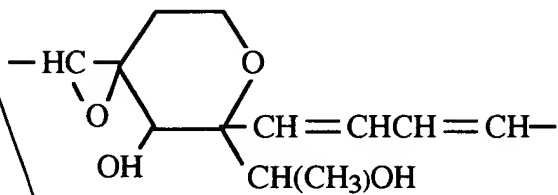
R' is any molecule composed predominantly, or in its entirety, of combinations of C, H, and O:

Some representative examples of R' include

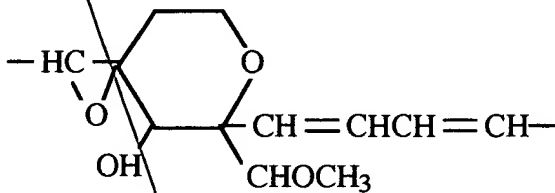
Satratoxin H:



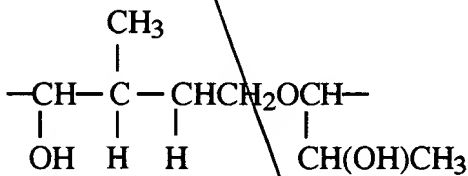
Satratoxin G:



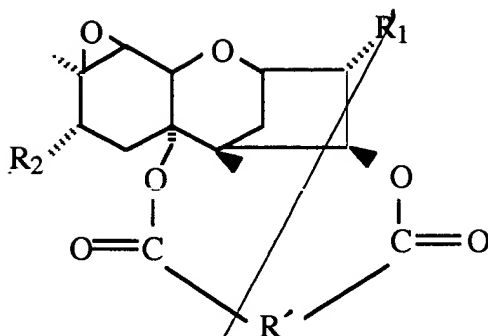
Satratoxin F:



Roridin A:



or molecules of the following general formula.

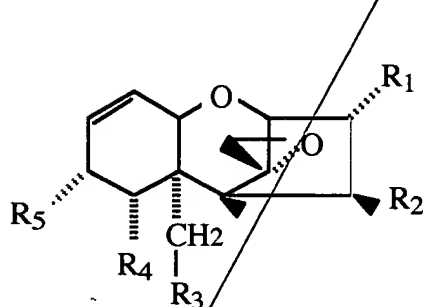


Wherein R_1 is H, OH, or $O-C(=O)-CH_3$;

R_2 is H, OH, $O-C(=O)-CH_3$ or $OCOCH_2CH(CH_3)_2$; and

R' is any molecule composed predominantly, or in its entirety, of combinations of C, H, and O.

or molecules of the following general formula:



Wherein R_1 is H, OH, or $O-C(=O)-CH_3$;

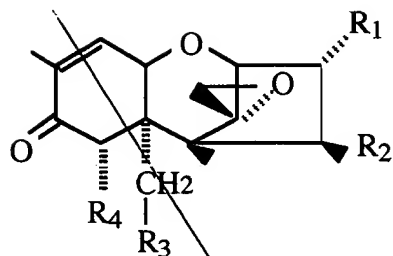
R_2 is H, OH, or $O-C(=O)-CH_3$;

R_3 is H, OH, or $O-C(=O)-CH_3$;

R_4 is H or OH; and

R_5 is H, OH, $O-C(=O)-CH_3$ or $C(=O)-O-CH_2(CH_3)_2$.

or molecules of the following general formula:



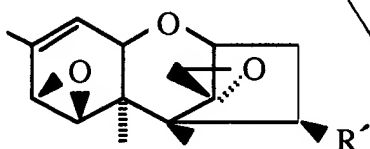
Wherein R₁ is H, OH, or $\text{O}-\overset{\text{O}}{\parallel}{\text{C}}-\text{CH}_3$;

R₂ is H, OH, $\text{O}-\overset{\text{O}}{\parallel}{\text{C}}-\text{CH}_3$ or $\text{O}-\overset{\text{O}}{\parallel}{\text{C}}-\text{CH}=\text{CH}-\text{CH}_3$;

R₃ is H, OH, or $\text{O}-\overset{\text{O}}{\parallel}{\text{C}}-\text{CH}_3$;

R₄ is H, OH, or $\text{O}-\overset{\text{O}}{\parallel}{\text{C}}-\text{CH}_3$;

or molecules of the following general formula:



Wherein R' is OH or $\text{O}-\overset{\text{O}}{\parallel}{\text{C}}-\text{CH}=\text{CH}-\text{CH}_3$.

a

4. The method of claims 1 through 3 wherein said compound(s) are fragments or sub-units of a sesquiterpene epoxide or trichothecene, which still possess the biological activity of inhibiting protein synthesis.
5. A method of chemical debridement or chemexfoliation for lung tissue comprising administration, by inhalation, of therapeutically effective amounts of compound(s) containing a central sesquiterpene epoxide structure.
6. The method of claims 5 wherein said compound(s) are trichothecene, or fragments or sub-units of a sesquiterpene epoxide or trichothecene, which still possess the biological activity of inhibiting protein synthesis.
7. A method of inhibiting or preventing inflammation in the lungs comprising administration, by inhalation, of therapeutically effective amounts of compound(s) containing a central

~~sesquiterpene epoxide structure~~

8. The method of claim 7 wherein said compound(s) are ~~trichothecene(s), or fragments or sub-~~
units of a sesquiterpene epoxide or trichothecene, which still possess the biological activity of
~~inhibiting~~ protein synthesis.

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